

Response
Application No. 10/849,370
Attorney Docket No. 042387

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended) A drive device of a light emitting display panel provided with a plurality of data lines and a plurality of scan lines which intersect one another, and capacitive light emitting elements having a diode characteristic which are respectively connected at intersecting positions between the respective data lines and the respective scan lines, comprising:

~~characterized in that the drive device are provided~~ a scan driver which performs scan one after another by connecting the respective scan lines to a scan potential point as well as connecting a scan line of a non-scan state which is not connected to the scan potential point to a driving voltage source and a data driver which controls lighting or non-lighting of the respective light emitting elements of a scan state in synchronization with a scan of the scan driver, wherein [[and]] by being constructed in such a way that the scan driver and the data driver set all scan lines and all data lines at a same electrical potential when a scan is switched so that electrical charges accumulated in parasitic capacitances of the respective light emitting elements are discharged and that charge current which follows the discharge of electrical charges, which is from the driving voltage source, and which charges parasitic capacitances of light emitting elements in the non-scan state is supplied as a forward current to a light emitting element which is scanned and lit, ~~so that~~ the light emitting element is driven to emit light, utilizing the driving

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voltage source, wherein the drive device further comprises a gradation control means which can change repeating times of scans within a unit time, and wherein the gradation control means controls changing of the repeating times of scans so that the more the number of repeating times of scans during the unit time, the higher the entire intensity level becomes, and the less the number of repeating times of scans, the lower the entire intensity level becomes.

Claim 2 (Original) The drive device of the light emitting display panel according to claim 1, characterized by being constructed in such a way that the scan driver and the data driver connect all scan lines and all data lines to the scan potential point, respectively, when a scan is switched so that the scan lines and the data lines are set at a same electrical potential.

Claim 3 (Original) The drive device of the light emitting display panel according to claim 1, characterized by being constructed in such a way that in a drive device of the light emitting display panel of a cathode line scan/anode line drive form in which cathodes of the respective light emitting elements are connected to the respective scan lines, the data driver connects the data lines to the scan potential point or sets the data lines in an open state so that a light emitting element of the scan state is controlled not to be lit or to be lit.

Claim 4 (Original) The drive device of the light emitting display panel according to claim 2, characterized by being constructed in such a way that in a drive device of the light

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emitting display panel of a cathode line scan/anode line drive form in which cathodes of the respective light emitting elements are connected to the respective scan lines, the data driver connects the data lines to the scan potential point or sets the data lines in an open state so that a light emitting element of a scan state is controlled to be lit or not to be lit.

Claim 5 (Cancelled).

Claim 6 (Original) The drive device of the light emitting display panel according to any one of claims 1 to 4, characterized by being constructed in such a way that the scan driver is composed of a first scan driver and a second scan driver which are connected to both end portions of respective scan lines, respectively, in the light emitting display panel and that the first scan driver and the second scan driver are in synchronism so as to perform operations to connect the respective scan lines to the scan potential point and to connect scan lines of the non-scan state which are not connected to the scan potential point to the driving voltage source.

Claim 7 (Cancelled).

Claim 8 (Original) The drive device of the light emitting display panel according to any one of claims 1 to 4, characterized by being constructed in such a way that a revival means for generating electromotive force, utilizing discharge current of a case where electrical charges

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accumulated in parasitic capacitances of the respective light emitting elements are discharged is provided and that the electromotive force generated by the revival means is returned to the driving voltage source.

Claim 9 (Cancelled).

Claim 10 (Original) The drive device of the light emitting display panel according to claim 6, characterized by being constructed in such a way that a revival means for generating electromotive force, utilizing discharge current of a case where electrical charges accumulated in parasitic capacitances of the respective light emitting elements are discharged is provided and that the electromotive force generated by the revival means is returned to the driving voltage source.

Claim 11 (Cancelled).

Claim 12 (Original) The drive device of the light emitting display panel according to claim 8, characterized by being constructed in such a way that an inductor which collects the discharge current as electromagnetic energy is provided in the revival means and that electromotive force generated in the inductor charges a capacitor arranged in the driving voltage source.

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Claim 13 (Cancelled).

Claim 14 (Original) The drive device of the light emitting display panel according to claim 10, characterized by being constructed in such a way that an inductor which collects the discharge current as electromagnetic energy is provided in the revival means and that electromotive force generated in the inductor charges a capacitor arranged in the driving voltage source.

Claim 15 (Cancelled).

Claim 16 (Cancelled).

Claim 17 (Cancelled).

Claim 18 (Currently Amended) A drive method of a light emitting display panel provided with a plurality of data lines and a plurality of scan lines which intersect one another and capacitive light emitting elements having a diode characteristic which are respectively connected, between the data lines and respective scan lines, at intersecting positions between the

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respective data lines and respective scan lines, the drive method of the light emitting display panel characterized by performing

 a reset process in which while the scan lines of the display panel are scanned at predetermined cycles, lighting or non-lighting of the respective light emitting elements of a scan state is controlled in synchronization with the scan and in which all scan lines and all data lines are set at a same electrical potential when the scan is switched so that electrical charges accumulated in parasitic capacitances of the respective light emitting elements are discharged,
[[and]]

 a process which follows this reset process and in which parasitic capacitances of light emitting elements in a non-scan state are charged, utilizing a drive voltage from a driving voltage source, the charge current being supplied to a light emitting element which is scanned and lit as a forward current so that a light emitting element in the display panel is driven to emit light by the charge current, and

a process in which all scan lines arranged on the display panel are repeatedly scanned a plural number of times to perform display of one screen while a repeating times of scans is changeably controlled so that the more the number of repeating times of the scan during a unit time, the higher the entire intensity level becomes, and the less the number of repeating times of the scan the lower the entire intensity level becomes.

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Claim 19 (Original) The drive method of the light emitting display panel according to claim 18, characterized in that, in the reset process in which the electrical charges accumulated in the parasitic capacitances of the respective light emitting elements are discharged, an operation of collecting the discharge current as electromagnetic energy by an inductor and an operation of returning electromotive force generated in the inductor to the driving voltage source are performed.

Claim 20 (Cancelled).

Claim 21 (New) The drive device of the light emitting display panel according to any one of claims 1 to 4, wherein continuous intensity variable setting is performed by varying an output voltage supplied from the driving voltage source.